

## **FACT SHEET** **(June 2013)**

### **TV White Space Technology**

Radio-frequency spectrum resources are harmonised internationally, with certain spectrum bands set aside for specific services, such as broadcast services. With the increased demand for spectrum, there is a greater need for more efficient and optimised use of this resource.

Dynamic Spectrum Access technology is one such innovation that is developed to improve spectrum efficiency through allowing opportunistic access to under-utilised spectrum. One such opportunity for the technology lies within the TV broadcast channels, also known as TV White Space (“TVWS”).

TVWS could potentially be used for alternative wireless broadband communications similar to Wi-Fi capabilities, but requires lower power and lower-cost deployment, to reach longer distances. TVWS technology could also allow a multitude of devices to be connected wirelessly and cost-effectively and enable the provision of innovative applications and services created for a smart-city.

IDA had in 2011 initiated proof-of-concept trials with industry members to validate the feasibility of using TVWS technology in Singapore, which was concluded successfully in 2012. Subsequently, an industry consortium known as the Singapore White Space Pilot Group (“SWSPG”), with support from IDA, launched a series of TVWS pilot projects in various parts of Singapore. Some examples of these pilot projects include the National University of Singapore’s smart metering; Singapore Island Country Club’s broadband connectivity; Marine Wi-Fi; and the Gardens by the Bay pilot on public Wi-Fi. These pilot projects also explore how white spaces technology can supplement and enhance the existing broadband infrastructure, overcome challenging terrains, and enable innovative consumer and business applications.

The pilot projects have demonstrated a good diverse range of commercial services that could be deployed using TVWS technology and they were well-received by the pilot users. Furthermore, the pilot projects have proven that allowing access to the TVWS could potentially avail more spectrum for wireless services in Singapore, and improve the overall efficiency in the use of the spectrum.

Nevertheless, there is a need to define the guidelines and regulatory requirements for the operation of White Space Devices, so as to facilitate their deployment while protecting the services currently operating in those bands from radio-frequency interference. To this end, a public consultation was launched on 17 June 2013 on the proposed regulatory framework on TVWS. The public consultation will enable IDA to understand the industry’s needs and refine the regulatory framework, and ensure that it is in line with international best practices and contextualised to the needs of Singapore’s geographical conditions and market environment.

The guidelines and regulatory requirements for the operation of White Space Devices are likely to be ready in 2014.

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## About Infocomm Development Authority of Singapore

The Infocomm Development Authority of Singapore (IDA) is committed to growing Singapore into a dynamic global infocomm hub. IDA uses an integrated approach to developing infocomm in Singapore. This involves nurturing a competitive telecoms market as well as a conducive business environment with programmes and schemes for both local and international companies. For more news and information, visit [www.ida.gov.sg](http://www.ida.gov.sg).

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